



Science Toolkit: Grade 8 Objective 1.A.1.h

Student Handout: Science: Grade 8 Objective 1.A.1.h

Standard 1.0 Skills and Processes

Topic A. Constructing Knowledge

Indicator 1. Design, analyze, or carry out simple investigations and formulate appropriate conclusions based on data obtained or provided.

Objective h. Use mathematics to interpret and communicate data.

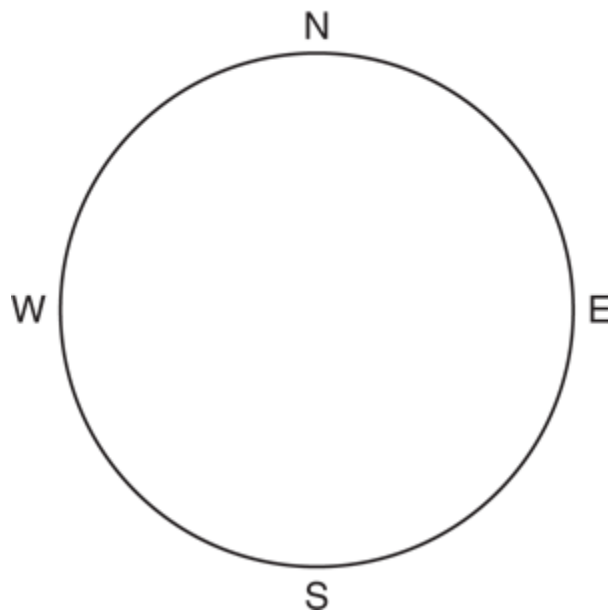
Selected Response (SR) Item

Question

Use the information below to answer the following.

A group of students investigated physics concepts at an ice-skating rink. The students skated at different speeds and pushed boxes across the ice. The boxes were exactly the same except for their mass.

ICE-SKATING RINK



MASS OF BOXES

| Box | Mass (kilograms) |
|-----|------------------|
| 1 | 45 |
| 2 | 60 |
| 3 | 70 |
| 4 | 85 |

The perimeter of the skating rink is 75 meters. A student skates the perimeter of the rink 4 times in 5 minutes.

$$\text{average speed} = \frac{\text{distance traveled}}{\text{time interval}}$$

What is the average speed of the student in meters per second?

- A. 1 meter per second
- B. 15 meters per second
- C. 300 meters per second
- D. 375 meters per second

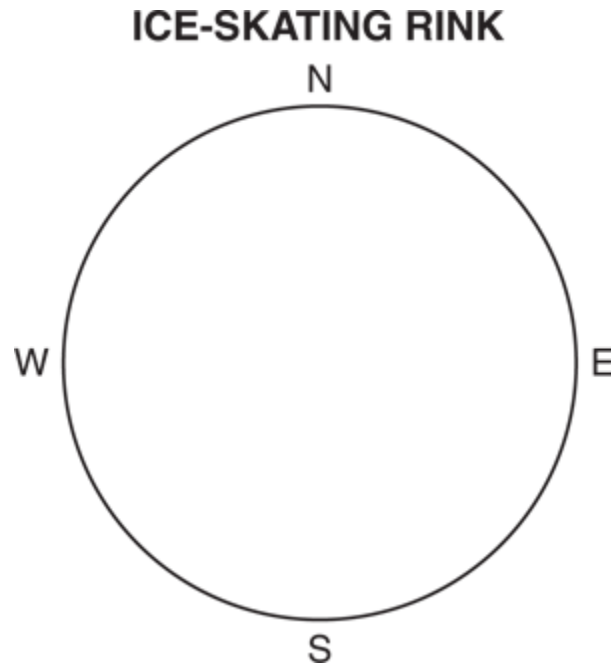
Correct Answer

- A. 1 meter per second

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